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**REMARKS**

Applicant respectfully requests entry of the amendments and consideration and allowance of all of the pending claims in view of the foregoing amendments and the following arguments. The amendments present the rejected claims in better form for consideration on appeal. The amendments also are believed to place the application in condition for allowance.

**Rejection of Claims 7-46 as Obvious over Matthews et al  
in view of European Patent Application 0 434 464 and Karn**

The examiner rejected claims 7-46 as obvious over Matthews et al. in view of EPA 0 434 464 and Karn. The examiner found the arguments filed May 15, 2006 to be unpersuasive. The examiner contends that Matthews teaches a lubricating oil composition which may be used as a hydraulic fluid comprising zinc dialkyl dithiophosphate and formula I, and that the foregoing combination gives improved anti-wear performance. The examiner admits that Matthews does not teach the addition of magnesium salicylate. However, the examiner contends that EP 0 434 464 A1 teaches that when hydraulic fluids containing an amino succinate ester are used in an acidic environment, it can be desirable to incorporate overbased alkylsalicylate, and that Karn teaches overbased magnesium alkylsalicylates as additives for hydraulic fluids.

The examiner maintains that a case of *prima facie* obviousness has been established with respect to all of the claims, including the pending method claims. The examiner contends that

Such compositions and methods have been found to be *prima facie* obvious as outlined above. The examiner is of the position that the claimed compositions are not even required to be used as a hydraulic fluid since intended use or preamble limitations carry no weight in composition claims.

The examiner rejects applicant's argument that the combination of ZnDTP and magnesium salicylate is a result effective variable because "the claimed invention is not limited to use in a wear environment." The examiner contends that the burden has shifted to applicant to come forward with arguments and/or evidence to rebut the *prima facie* case.

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Response-The Composition Claims

Claims 17 and 20 have been amended and new claims 47-49 have been added. Claims 8, 13-21, and new claims 47-49 are commensurate in scope with the test data presented in the original Examples, found at pages 10-12 of the specification, and in the Declaration of Richard Dixon ("Dixon Decl.").

New claim 47 specifies as follows:

A hydraulic fluid comprising lubricant base oil in combination with:

from 0.01 to at most 1 %wt of magnesium salicylate having a total base number of 337 or more and having a magnesium content of 550% or more of the stoichiometrically equivalent amount of magnesium based on the amount of total acid present; and

0.25%wt or more of zinc dithiophosphate.

Claim 20 is similar, but directed to an additive package. Claim 17 is similar with the addition of a compound of formula I. Claim 48 is similar, but specifies about 0.012 wt% magnesium salicylate having a total base number of about 345. Claim 49 specifies: about 0.06 %wt or more magnesium salicylate; a magnesium content of about 750% or more of the stoichiometrically equivalent amount of magnesium based on the amount of total acid present; and, about 0.37 %wt or more zinc dithiophosphate.

The examiner contends that "only one example was presented containing 0.12 wt.% magnesium salicylate having a total base number of 356 and a magnesium content of 550% of the stoichiometrically equivalent amount of magnesium, and 0.25 wt.% zinc DTP.<sup>1</sup>

The examiner is incorrect. While it is true that the Dixon Declaration provided one additional example, it is also true that the original specification supplied two original examples. See Examples, pp. 10-12 of the specification. In the two original examples, "Composition 1" and "Composition 2" comprised 0.06 wt.% magnesium salicylate having a total base number of 337 and a magnesium content of

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<sup>1</sup> The total base number in the additional example provided in the Dixon Declaration was 345 rather than 356. Dixon Decl. ¶ 9.

750% of the stoichiometrically equivalent amount of magnesium, and 0.37 wt.% zinc DTP. Specification, pages 10-12.

These three examples are commensurate in scope with the composition claims, as currently presented. The cases cited by the examiner support such a conclusion.

Of the cases cited by the examiner, the present case is most similar to *In re Grasselli, et al.*, 218 U.S.P.Q. 769, 778-779 (Fed. Cir. 1983). In *Grasselli*, an affidavit describing experiments with sodium only did not support broad claims to "an alkali metal." However, an affidavit (or declaration) which demonstrated that catalyst "containing potassium, iron, bismuth, and molybdenum" produced "a percentage improvement (in yield) of 94% . . . in acrolein production at 400 °C" and a "percentage improvement [of] 479% at 310 °C" was found to be "evidence of unexpected superiority" of the claimed catalyst containing those elements. *Id.* at 778-779 (emphasis added). The evidence in the present case is very similar, demonstrating a greater than 600% improvement using magnesium salicylate compared to the results using calcium salicylate (15 mg total weight loss vs. 97 mg total weight loss).<sup>2</sup>

Although Applicant disagrees that it is necessary to limit the composition claims to the specific amounts of components used in the examples, claims 47-49 are directed to the amounts of the components used in the specific formulations of the examples.

If the examiner disagrees that the claims are commensurate in scope with the data presented, Applicant respectfully requests that the examiner call the undersigned attorney to resolve any such disagreement. In order to facilitate such

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<sup>2</sup> The present case is distinguishable from *In re Lindner*, 173 U.S.P.Q. 356 (C.C.P.A. 1972). The testing relied upon in the present case uses the only compositions referred to in the claim—ZnDTP and magnesium salicylate compared to ZnDTP and calcium salicylate. In *Lindner*, "only a single composition of those included in the claims was tested."

The present case also is distinguishable from *In re Kulling*, 14 U.S.P.Q.2d 1056, 1056, 1058 (Fed. Cir. 1990). The differences upon which Applicant relies are recited in the claims. The same was not true in *Kulling*. The claims in *Kulling* related to a process for treating a dilute iron (II) sulfate-containing sulfuric acid solution. The evidence was that "only minimal amounts of chromium and vanadium [were] extracted from the filter cake when the wash volumes [were] limited as set forth in claim 1." *Id.*, 14 U.S.P.Q.2d at 1056, 1058. The Federal Circuit found that "the rejected claims read on a process for treating solutions which contain neither chromium nor vanadium as there is no indication, either in the claims, in the specification, or otherwise, that either chromium or vanadium is or must be present in the dilute iron (II) sulfate-containing acid solution to which the claimed process is directed." *Id.* at 1058. The same cannot be said in the present case.

**agreement, Applicant submits herewith a request for interview after final action, and an Authorization for the undersigned to Act in a Representative Capacity.**

The data presented in the original specification established unexpected results using the claimed formulation. That data demonstrated that, when wear testing was performed using the claimed lubricant formulation, the total weight loss (ring + vane weight loss) observed using magnesium salicylate in the formulation was **over six times less** than the total weight loss observed using calcium salicylate in the same formulation. See Table 1 on page 12 of the application. See also claim 24. The foregoing establishes unexpected results.

The examiner has not pointed to a teaching in any cited reference that a lubricant formulation comprising magnesium salicylate would produce **any** reduction in total weight loss during wear testing compared to the same the formulation comprising calcium salicylate. The examiner certainly has not pointed to a teaching or suggestion that a lubricant formulation comprising magnesium salicylate would produce a reduction of **over six times** in total weight loss compared to the same the formulation comprising calcium salicylate.

When an applicant submits evidence, whether in the specification as originally filed or in reply to a rejection, the examiner **must reconsider the patentability of the claimed invention**. "A decision to make or maintain a rejection in the face of all of the evidence must show that it was based on the **totality of the evidence**. **Facts established by rebuttal evidence must be evaluated along with the facts on which the conclusion of obviousness was reached, not against the conclusion itself.**" See MPEP 2142 (Emphasis added). See also *In re Piasecki, et al.*, 223 U.S.P.Q. 785, 788 (Fed. Cir. 1984); *see also In re Brouwer*, 37 U.S.P.Q.2d 1663, 1666 (Fed. Cir. 1995); *In re Rouffet*, 47 U.S.P.Q.2d 1453, 1457-1459 (Fed. Cir. 1998); *In re Rijckaert*, 9 F.3d 1531, 1533-34, 28 U.S.P.Q.2d 1955, 1957 (Fed. Cir. 1998). The totality of the evidence includes assertions made in the specification as originally filed. "If the examiner determines there is factual support for rejecting the claimed invention under 35 U.S.C. 103, the examiner must then consider any evidence supporting the patentability of the claimed invention, such as **any evidence in the specification** or any other evidence submitted by the applicant." See MPEP 2142.

The Examples in the specification and the Declaration of Richard Dixon rebut any *prima facie* case of obviousness that the examiner established with respect to the amended composition claims 8, 13-21, and claims depending therefrom.

Applicant respectfully requests reconsideration of amended composition claims 8, 17, 20 and claims depending therefrom. Applicant also respectfully requests entry, consideration, and allowance of new composition claims 47-49.

#### **-The Method Claims**

The examiner contends that a *prima facie* case of obviousness also has been established with respect to method claims 22-38. The examiner is incorrect.

As an initial matter, Applicant notes that method claims 22-38 were not present during the appeal in this case. The method claims were added in the response filed on September 2, 2005, and are currently amended. The examiner has not established a case of *prima facie* obviousness of amended method claims 22-38.

#### **-The Examiner's Burden with Respect to the Method Claims**

In order to establish that amended method claims 22-38 are *prima facie* obvious over the cited references, the examiner must point to two things in the references, and not in the applicant's disclosure--(1) the suggestion of the invention, and (2) the expectation of its success. *In re Vaeck*, 20 U.S.P.Q.2d 1438, 1442 (Fed. Cir. 1991). The examiner has not met this burden.

As amended, method claim 22 reads as follows (emphasis added):

22. A method for reducing total weight loss during operation of equipment using hydraulic fluid, the method comprising:

formulating said hydraulic fluid comprising a combination of an amount of zinc dithiophosphate and a quantity of magnesium salicylate;  
and

operating the equipment using the hydraulic fluid under wear conditions which reduce the weight of the equipment, the combination being effective to produce a first total weight loss which is less than a second total weight loss observed operating the same equipment under the same conditions using a second

**hydraulic fluid comprising a quantity of calcium salicylate in place of said quantity of magnesium salicylate.**

The examiner has not pointed to a teaching or suggestion in the cited references of every limitation of claims 22-38.

The arguments presented by the examiner with respect to the composition claims do not apply to the amended method claims. The decision in *In re Dillon* related to composition claims.<sup>3</sup> *In re Dillon*, 16 U.S.P.Q.2d 1897 (Fed. Cir. 1990) ("*Dillon*"), *cert. denied*, *Dillon v. Manbeck*, 500 U.S. 904 (1991). The Federal Circuit in *Dillon* expressly did not address the method claims. The Court stated: "[w]e make no judgment as to the patentability of claims that Dillon might have made and properly argued to a method directed to the novel aspects of her invention." *Dillon*, 16 U.S.P.Q.2d at 1903 (emphasis added). In the present case, Applicant has made and now properly argues claims to such a method.

The amendments to the method claims merely make explicit subject matter that Applicant believes already was present in the claims. The amendments therefore do not narrow the claims. As amended, claim 22 clearly specifies **"operating the equipment using the hydraulic fluid under wear conditions which reduce the weight of the equipment."** The examiner cannot colorably contend that the amended method claims do not require the use of the fluid as a hydraulic fluid. Nor can the examiner contend that the amended method claims do not require use of the hydraulic fluid under wear conditions.

The examiner has not pointed to a teaching or suggestion in the cited references that operating equipment under wear conditions using "hydraulic fluid comprising a combination of an amount of zinc dithiophosphate and a quantity of magnesium salicylate" would be **"effective to produce a first total weight loss which is less than a second total weight loss observed operating the same equipment under the same conditions using a second hydraulic fluid comprising a quantity of calcium salicylate in place of said quantity of magnesium salicylate."** The examiner therefore has not

<sup>3</sup> Composition claim 2 in *Dillon* read: "A composition comprising a hydrocarbon fuel; and a sufficient amount of at least one orthoester so as to reduce the particulate emissions from the combustion of the hydrocarbon fuel, wherein the orthoester is of the formula (formula omitted)."

pointed to a teaching or suggestion of every limitation of the method claims in the cited references, and has not pointed to a teaching or suggestion of the "invention" in the cited references.

In order to establish a case of *prima facie* obviousness, the examiner has the burden to point to a teaching or suggestion in the references themselves that it would be desirable to make the modification(s) required to produce the claimed method or composition. *In re Brouwer*, 37 U.S.P.Q.2d at 1666. The examiner has not met this burden.

The examiner has not pointed to a teaching or suggestion in the references themselves that it would be desirable to modify Matthews to operate equipment under wear conditions using "hydraulic fluid comprising a combination of an amount of zinc dithiophosphate and a quantity of magnesium salicylate." *In re Brouwer*, 37 U.S.P.Q.2d at 1666. The examiner has not pointed to a teaching or suggestion that using magnesium salicylate rather than calcium salicylate would "produce a first total weight loss which is less than a second total weight loss observed operating the same equipment under the same conditions using a second hydraulic fluid comprising a quantity of calcium salicylate in place of said quantity of magnesium salicylate." The examiner clearly has not pointed to a teaching or suggestion that using magnesium salicylate could produce over six times less total weight loss than using calcium salicylate under the same conditions, as demonstrated in the Examples. Claim 24.

The examiner has not pointed to any teaching or suggestion in any cited reference that the use of magnesium alkylsalicylate--rather than calcium alkylsalicylate- would be a result effective variable. The result effective nature of this variable is seen from Table 1 in the specification, the Dixon Decl., and the foregoing discussion. *In re Antonie*, 559 F.2d 618, 620, 195 U.S.P.Q. 6, 8 (C.C.P.A. 1977).

The examiner points to Karn as teaching "basic magnesium salts of substituted aromatic hydroxy carboxylic acids or the derivatives thereof." Karn, abstract. However, Karn merely lists a hydraulic fluid as one of many of "a variety of lubricating and fuel compositions" in which Karn's magnesium salts could be used. Karn's passing mention of a hydraulic fluid is not a teaching or suggestion that the use of a hydraulic fluid comprising a combination of ZnDTP and magnesium salicylate would be "effective to

produce a first total weight loss which is less than a second total weight loss observed using a second hydraulic fluid comprising a quantity of calcium salicylate in place of said quantity of magnesium salicylate." Karn's passing mention of a hydraulic fluid certainly cannot be considered a teaching or suggestion that using hydraulic fluid comprising a combination of ZnDTP and magnesium salicylate salts could produce an improvement of over six times less weight loss than the use of a combination of ZnDTP and calcium salicylate under the same conditions.

Using a hydraulic fluid comprising the claimed combination of ZnDTP and magnesium salicylate is a result effective variable. The discovery that a variable is a result effective variable is not obvious. As explained in *Antonie*, "[d]isregard for the unobviousness of the results of 'obvious to try' experiments disregards the 'invention as a whole' concept of § 103." *Id.*

The examiner has not pointed to a teaching in the cited references that would motivate a person of ordinary skill in the art to operate equipment under wear conditions using "hydraulic fluid comprising a combination of an amount of zinc dithiophosphate and a quantity of magnesium salicylate." The examiner certainly has not pointed to a teaching or suggestion that a combination of ZnDTP and magnesium salicylate would "produce a first total weight loss which is less than a second total weight loss observed using a second hydraulic fluid comprising a quantity of calcium salicylate in place of said quantity of magnesium salicylate." The examiner most certainly has not pointed to any teaching in the cited references that the total weight loss using magnesium salicylate could be over six times less than the total weight loss using calcium salicylate in the same formulation, as seen from Table 1 in the specification.

Applicant respectfully requests that the rejection of method claims 22-38 as obvious over Matthews et al. in view of EPA 0 434 464 and Karn be withdrawn.

**Rejection of Claims 7-12, 18, 20, 22-33, 39, 40, 43-46 as obvious over U.S. Patent No. 6,306,801 to Yagishita et al**

The examiner maintained the rejection of claims 7-12, 18, 20 and 22 over Yagashita, and also rejects claims 21-33, 39, 40, and 43-46 as obvious under 35 U.S.C. § 103 over Yagashita.



**Response**

The arguments presented above apply equally to the rejection over Yagashita. Applicants respectfully request that the rejection be withdrawn.

**Rejection of Claims 13-17, 19, 21, 34-38, 41 and 4 as obvious over Yagishita in combination with Matthews**

The arguments presented above apply equally to the rejection over Yagashita in view of Matthews. Applicant respectfully requests that the rejection be withdrawn.

**CONCLUSION**

For all of the foregoing reasons, Applicant respectfully requests entry, consideration, and allowance of all of the pending claims. The Commissioner is hereby authorized to charge any fees associated with this paper to Deposit Account No. 19-1800 (File no. TS7564), maintained by Shell Oil Company

Respectfully submitted,



Paula D. Morris  
Reg. No. 31,516  
Morris & Amatong, P.C..  
10260 Westheimer, Suite 360  
Houston, TX 77042  
713/334-5151  
FAX 713/334-5157  
ATTORNEY FOR APPLICANT

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